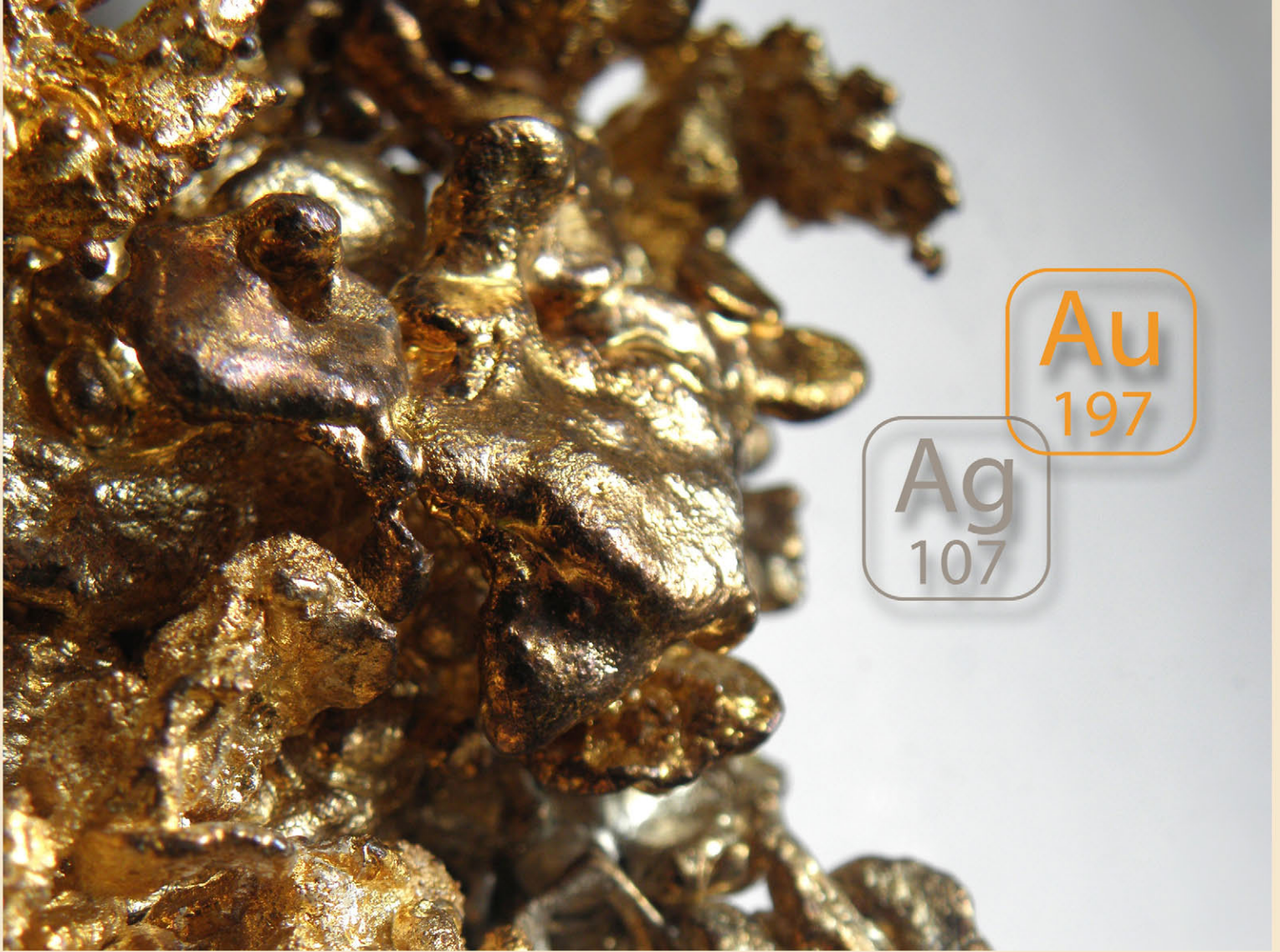


The Geyser Reactor



Alexander Putney



Human consciousness is now experiencing a great expansion in global awareness concerning the advanced bioelectrical technologies of our worldwide Paleo-Sanskrit mother-culture, marking our rapid ascension into a renewed Golden Era.

The greatest application of this advanced knowledge requires high-precision determinations for the entire Periodic Table of Elements, especially those values for atomic masses, densities and thermal expansion coefficients that inform a complete understanding of resonant vibratory relationships, *enabling frequency control of rare, naturally occurring phenomena such as acoustic levitation and nuclear transmutation.*

Geological observations regarding the prevalent formation of gold deposits within volcanic upthrusts of all kinds have been replicated in simple laboratory experiments that confirm the amazing resonant nuclear recombination process by which the elements that make up the Earth's mantle and crust are continually being converted from one to another.

Natural conditions presented by geothermal upwellings are responsible for converting silver into gold by resonant atomic transmutation reactions that are prevalent within hydrological vents known as geysers. Geysers are active hotsprings that spray jets of highly mineralized water and steam, and often form when groundwater seeping through bedrock fractures is superheated near magma chambers and forced to the surface through overlying fissures and pressure chambers in series.

Alexander Putney's 2013 invention of the artificial Geyser Reactor system applies the same elevated temperature and pressure fluctuations seen in natural geyser systems, while offering precise digital control of frequency tuning to maintain phonon resonance of silver atoms with the gold target element.

Geyser Reactor systems safely convert silver into gold at rates exceeding 70% during each 2-week cycle in operation!

The atomic mass of gold is roughly twice that of silver, resulting in a significant and permanent weight change within the metal as trapped gas atoms undergo nuclear fusion.

The Geyser Reactor specifications detail reactor assembly from widely available component parts to accommodate gold production goals on all scales. Multiple reactors can be connected in series to increase total gold production, capacity and operative efficiency.

Complete formulas and calculation sets are provided for conversion of silver into gold, precisely accounting for nuclear recombination patterns of both silver isotopes ^{107}Ag and ^{109}Ag , now easily replicated in properly configured phonon reactors.

Putney's essentially Vedic approach relies upon sets of key observations of many unmistakable patterns witnessed among both biological and geological processes, offering a renewed definition of complex vibratory relationships that vivify the luminous web of life extending throughout the cosmos.

The Geyser Reactor



Alexander R. Putney

Human Resonance

www.human-resonance.org
www.resonanciahumana.org

© 2014 Alexander R. Putney

The Geyser Reactor	1 – 10
Silver ⇒ Gold Transmutation	11 – 18
Gold ⇒ Platinum Transmutation	19 – 20
Silver ⇒ Palladium Transmutation	21 – 22
Zinc ⇒ Palladium Transmutation	23 – 24
Zinc ⇒ Copper Transmutation	25 – 26
Calculating Process Results	27 – 28

For our sacred Mother Earth

*"The Mother bled. She had her period.
She was fertile and the world was fertile.
Her blood is gold. It in the Earth remains—it is fertility.
Gold and water; blood and water are
necessary for the life of all things."*

~ Koji Mamos

The Geyser Reactor



Great inventions often display a natural simplicity inspired by keen observations of the surrounding environment –meteorological, geological or biological. The remarkably simple Geyser Reactor system completed by Alexander Putney in 2014 (opposite) decisively refutes many long held misconceptions of geology, biology and atomic physics by clearly defining and demonstrating the set of low energy conditions that induce *resonant nuclear transmutation*.

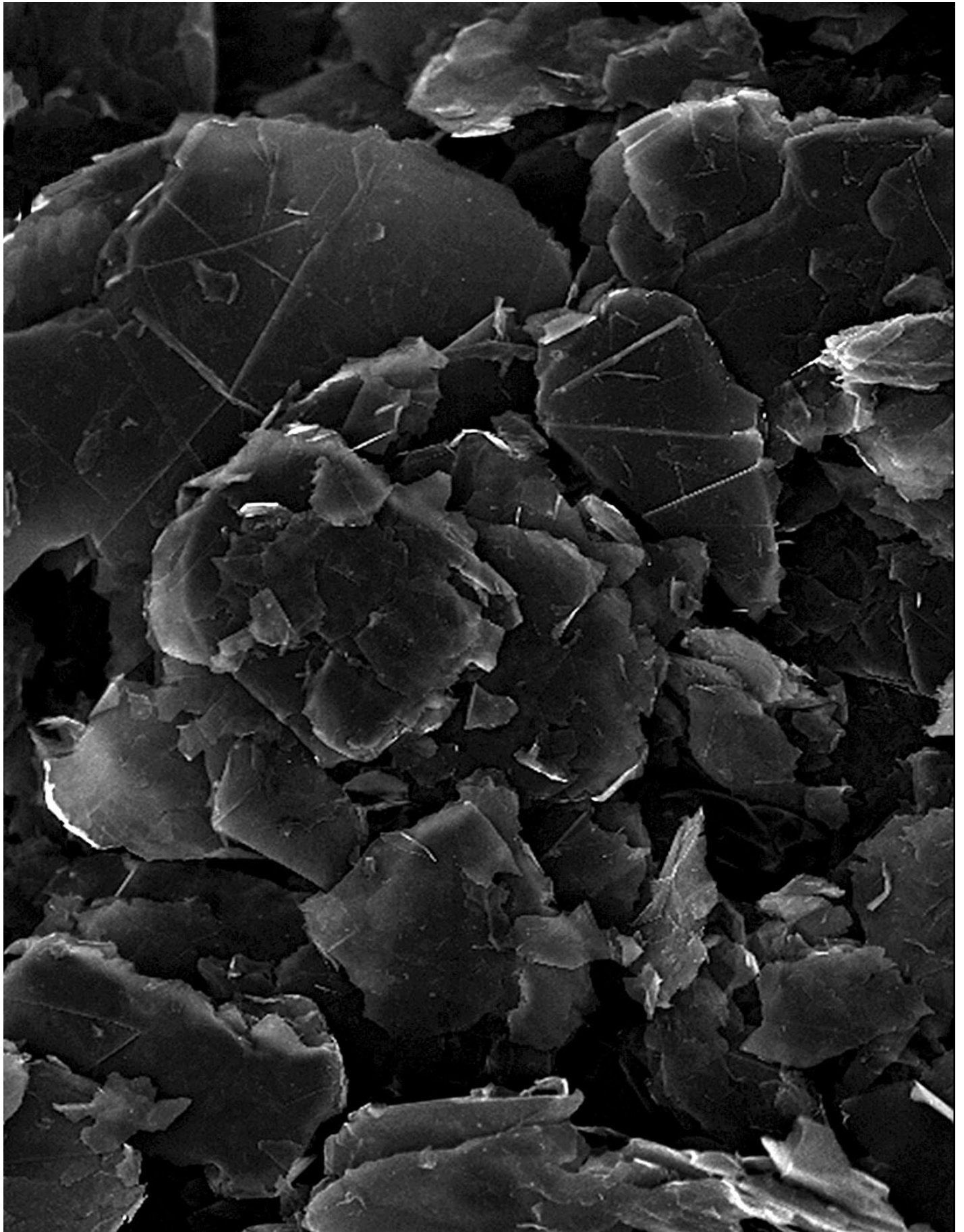
The Geyser Reactor process represents an unexpected bi-product of twelve years of focused study of ancient psychoacoustic instruments and architectural elements tuned for biorhythmic synchronization. Controlled frequency resonance was also applied by ancient cultures in advanced metallurgical techniques enabling induction of atomic transmutation reactions by phonon resonance relationships of metals and absorbed gas atoms.

Replicating hydrological transmutation, the Geyser Reactor maintains a cyclical two-phase process for conversion of various metals as ultrafine powders. This digitally controlled system drives a basic two-stage reaction that applies newly defined physical laws of resonant atomic transmutation that account for the abundance of gold and other precious metals within hydrological steam vents and geysers. Volcanic hot springs are now known to accumulate precious metals by perpetuating nuclear transmutation reactions of metal particles with volcanic gases absorbed at high temperatures and pressures during prolonged periods within fractured bedrock chambers, suffering periodic eruptions that effectively quench the hot metals as they emerge from geysers at the surface.

Carbon dioxide-producing active yeast reactors developed by Joe Champion in 2001 applied phonon resonance formulae, as first conceived by geologist Walter Lussage in 1967, for biological transmutation of silver surfaces to nanogold (above). Now concisely explained within the context of geological and biological transmutation regimes, *essential atomic conversion processes are now achievable in simpler digitally controlled abiotic phonon reactors requiring only heated water and carbon dioxide nanobubbles to convert bulk silver nanopowder into pure gold.*

The Geyser Reactor







Kaneo Chiba of Reo Lab. Co. accomplished production and application of nanobubbles to various processes, including bulk waste treatment, food sterilization and preservation with ozone nanobubbles, in addition to health enhancement of most aquatic and terrestrial organisms exposed to oxygen nanobubbles. Initial processes for nanobubble production involved cavitation with ultrasound, yet simple carbon-based ceramic nozzles developed by Satoshi Anzai of Anzai Kantetsu Co. presented an extremely cost effective production method in 2014 (above).



As the main component of this class of carbon-ceramics, amorphous carbon particles (SEM opposite) contribute micron-sized pores to the composite material that allow passage of gas under low pressure through the nozzles to generate micron-sized bubbles from submerged nozzle surfaces. In still water, microbubbles rapidly coalesce to form larger bubbles that cannot remain suspended in the liquid medium but escape to the water's surface.



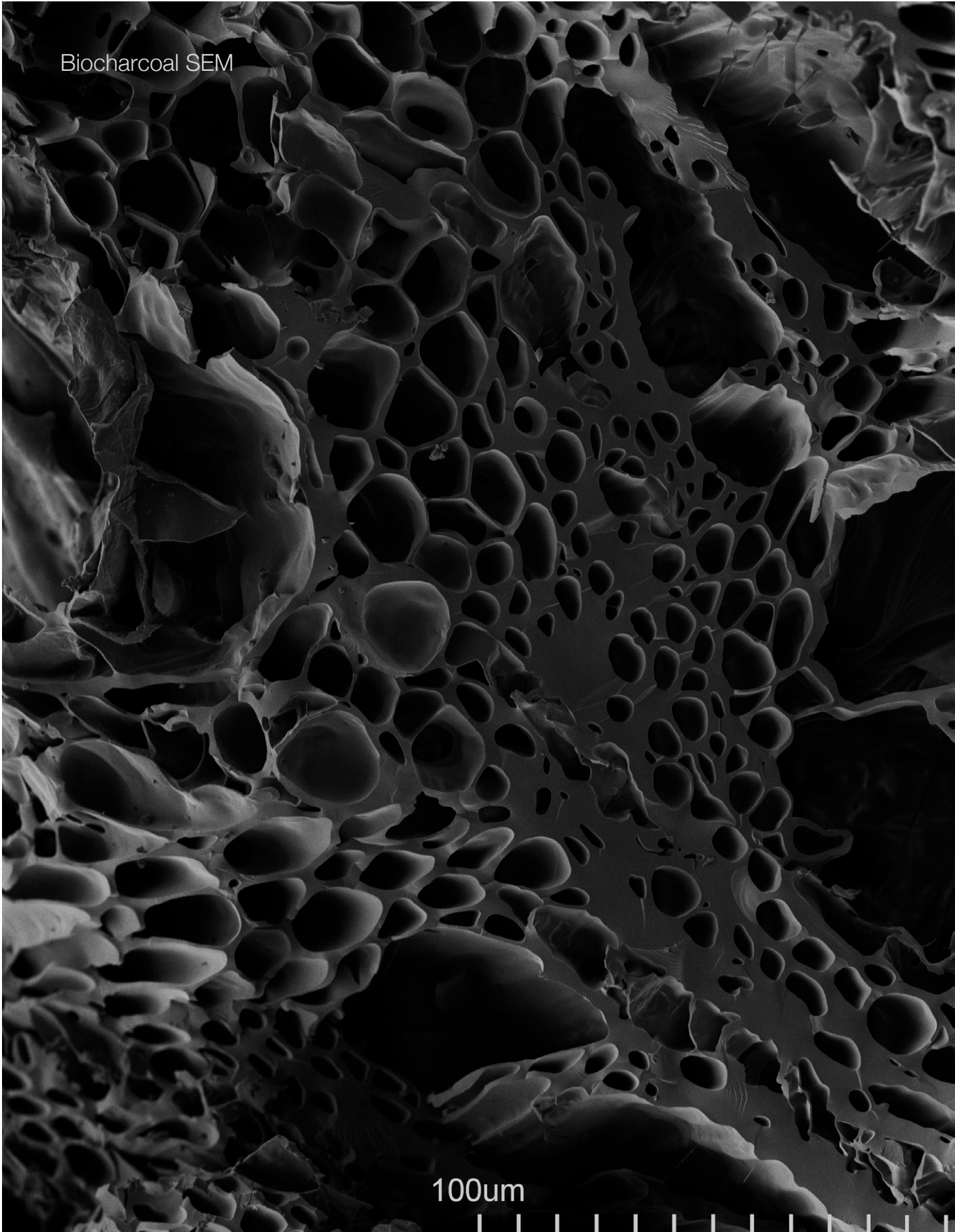
However, investigation of the behavior of microbubbles produced from micro-pores into a narrow jet of fast-flowing water revealed several surprising phenomena (above). The rapid motion of microbubbles torn away from nozzle surfaces begins a process known as *adiabatic compression* leading to collapse by isothermal evolution, whereby reducing in size during the course of several minutes to form nanobubbles (Ohgaki *et al.*, 2010).

During the microbubbles' decrease in size due to surface tension effects driving increasing pressurization and resulting dissolution of interior gases into the surrounding liquid, reactive oxygen species (ROS) are generated that decompose organic chemicals and contribute to the beneficial breakdown of toxins within biological systems and the natural environment. Stabilization as long-lived nanobubbles occurs when ions bind to the gas/liquid interface, yet display full collapse and complete dissolution after several minutes in the absence of bound ions.

Longterm studies of the longevity of gas nanobubbles stabilized at <200nm in size in bottled water samples have shown their presence in significant quantity several months after the infusion and bottling process (Takahashi, 2005). Nanobubble stabilization is also influenced by repulsive electrostatic forces due to surface charging, and may be maintained over long periods in colloidal suspensions of silver nanoparticles. Studies of nanoscale forces and fluid/gas dynamics reveal many surprising properties that contribute significantly to our understanding of basic metabolic processes that determine the cellular health of living organisms and entire ecosystems.

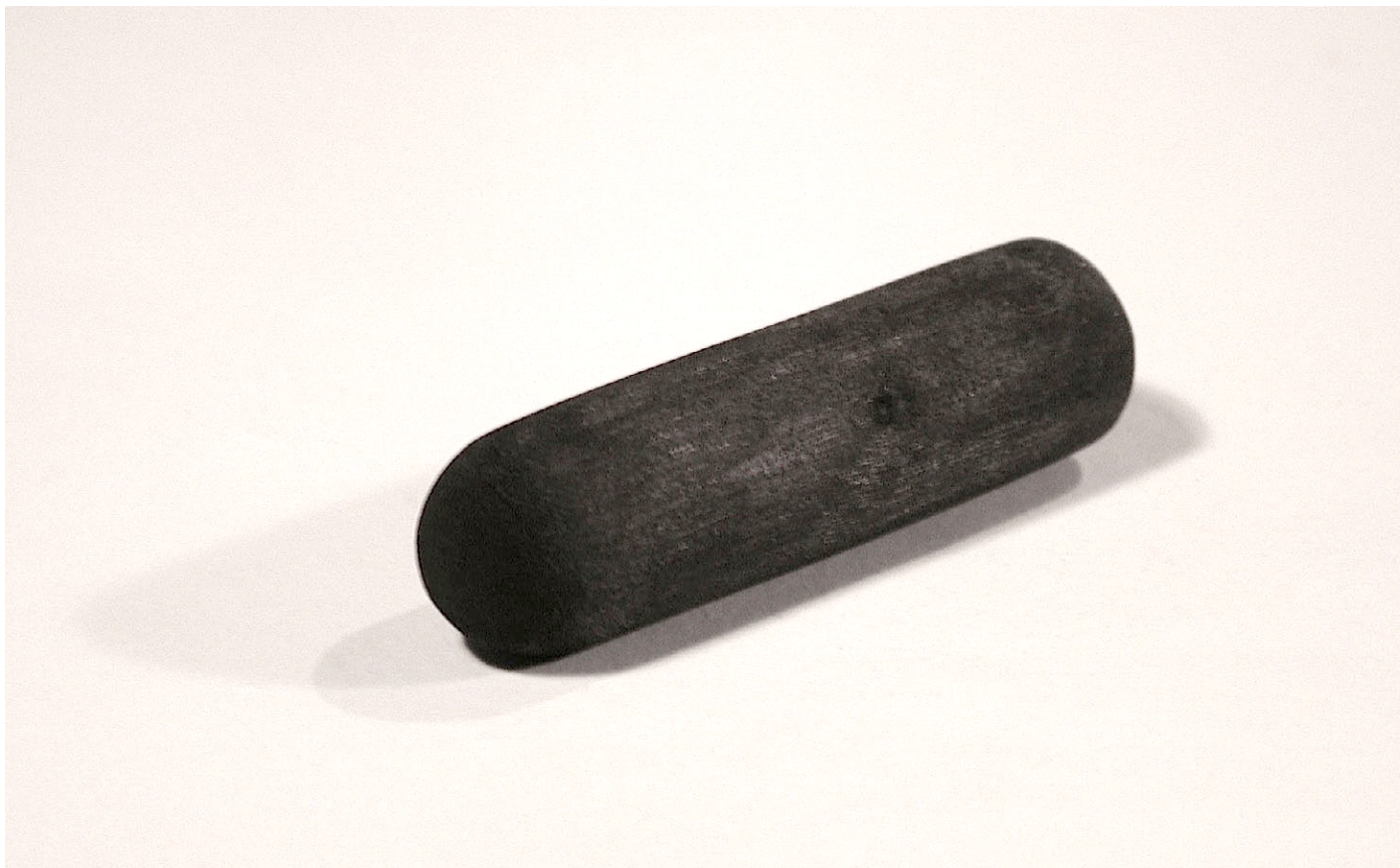
Use of carbon-based ceramic nozzles with Geyser Reactor transmutation systems confirms nanobubble technology as a cost-effective solution for efficient bulk delivery of carbon dioxide gas for binding with silver nanoparticles, enabling rapid gas dissolution into metals under ambient pressures. Bulk binding of gas nanobubbles with metal nanoparticles replicates the metabolic activity of hemoglobin in red blood cells, enabling high gas absorption and bulk transmutation rates that far exceed those associated with resonant transmutation in healthy organisms, even under bioelectrification conditions that increase absorption of gases by metals within the body's tissues.

Biocharcoal SEM



A compact device for producing gas nanobubbles remains the only component of the Geyser Reactor system not readily available, requiring fabrication from special gas permeable materials. While the carbon-ceramic nozzles developed and demonstrated by Anzai Kantetsu represent cost-effective alternatives to high-pressure, high-temperature cavitation machines for nanobubble production, their new nozzles are not yet available for order.

Carbon-ceramics are manufactured by wet packing 60% carbon, 40% clay powder mixtures into nozzle molds before drying and firing @ >1000°C in a reducing or inert gas atmosphere. Viable carbon-ceramics that allow the passage of gas through micropores are commonly used for high-temperature glass and metal casting applications, and can be easily fabricated into a nozzle by reshaping carbon-ceramic mold materials into the desired form.

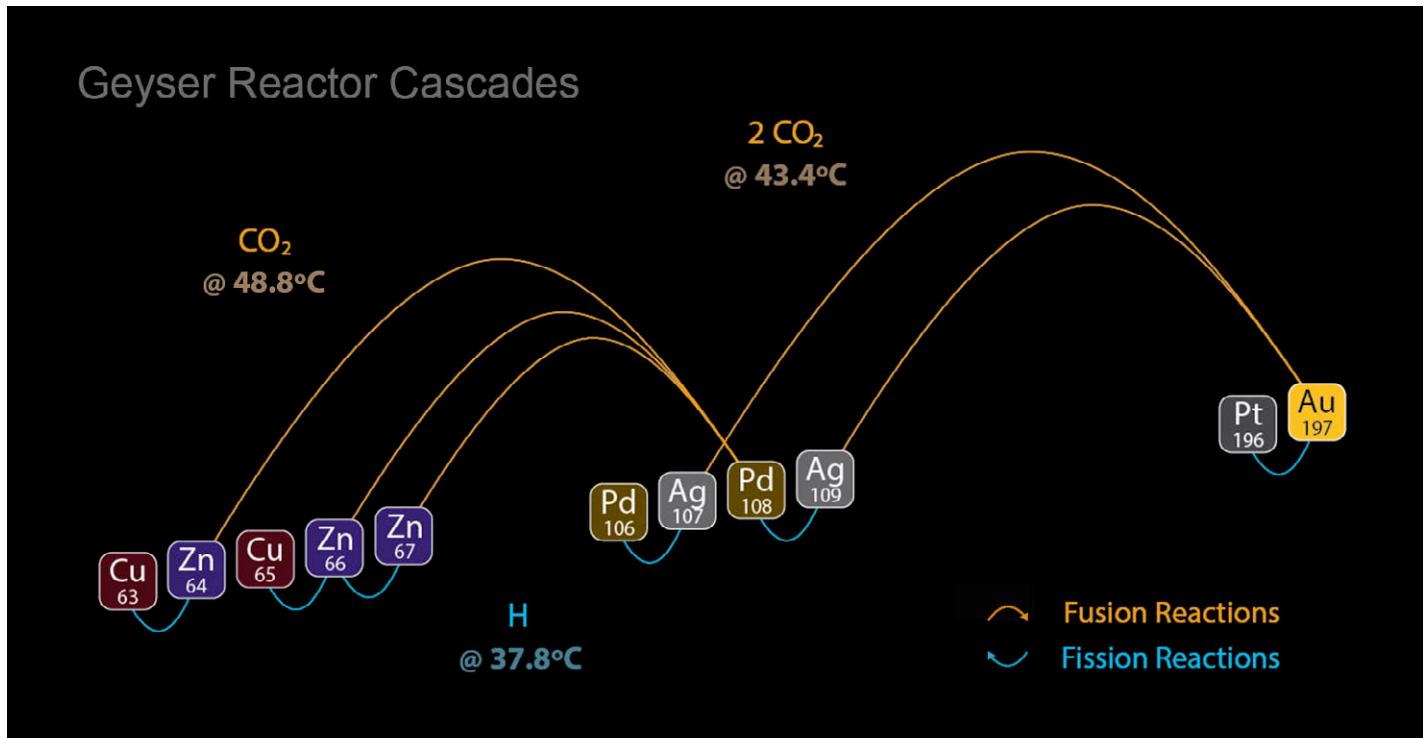


However, an even simpler nanobubble device has been integrated into the design of the Geyser Reactor system, consisting of a pyrolyzed segment of hardwood tree branch that maintains the natural nanoarchitecture of living wood, generally referred to as 'biological charcoal'. The natural nanopiping of tree wood employs surface wetting effects for pumping water up to the leaves, sometimes hundreds of feet into the sky, yet also facilitates production of nanobubbles. Electron microscopy reveals the complex nanostructures of biocharcoal, presenting networks of carbon nanotubes arranged lengthwise in concentric rings with interconnecting nanopores (SEM opposite).

Biocharcoal nozzles offer the same basic nanobubble characteristics demonstrated by the carbon-ceramics of Anzai Kantetsu –*at a much lower cost of just 25¢ per nozzle*– reflecting the simple natural solutions of Ayurveda. By carefully selecting and tooling the surfaces of a pyrolyzed hardwood branch segment that has no large pores or cracks, and sealing the central channel which tends to be much larger than the nanotubes arranged in concentric rings, an extremely cheap alternative can be produced *with minimal cost and effort, in any part of the world*.

The ideal nozzle form is bullet-like to allow efficient waterflow over its surfaces (above). Biocharcoal can be quickly reduced with abrasive sandpaper down to the diameter of tubing to be used for delivering low pressure gas flow. Cracking is the biggest obstacle in this basic production process, causing structural losses within the wood, and requires slow, thorough drying of selected hardwood branch segments, followed by heating for 25 minutes @ ~250°C in a reducing or inert gas atmosphere. Size and shape of the nozzle can be adjusted to fit any usable segment of biocharcoal, provided the finished nozzle can be fitted into the pressure tubing securely.

Putney's basic Geyser Reactor transmutation systems operate within the well-known thermoregulation ranges maintained by a healthy human body to achieve resonant conversion of *zinc* \Rightarrow *copper* by the same processes that rebalance blood metals within the red blood cells of all mammal species. This simple circulatory heating and cooling process can also be applied under identical conditions to achieve resonant nuclear conversions of *gold* \Rightarrow *platinum* and *silver* \Rightarrow *palladium*. Exact resonant atomic mass recombination patterns are provided below:



Starting Isotope	+	Absorbed Gas Atoms	\Rightarrow	Target Isotope	+	Bi-Products	\pm Variance
Ag ^{106.90509}	+	1 C ^{12.00000}	+	5 O ^{79.9745732}	\Rightarrow	Au ^{196.96656} + 2 H ^{2.015650074}	-0.10255
Ag ^{108.90475}	+	2 C ^{24.00000}	+	4 O ^{63.9796586}	\Rightarrow	Au ^{196.96656}	-0.08215
Zn ^{63.92915}	+	1 C ^{12.00000}	+	2 O ^{31.98983}	\Rightarrow	Pd ^{107.90389}	+0.01509
Zn ^{65.92604}	+	1 C ^{12.00000}	+	2 O ^{31.98983}	\Rightarrow	Pd ^{107.90389} + 2 H ^{2.015650074}	-0.00367
Zn ^{66.92713}	+	1 C ^{12.00000}	+	2 O ^{31.98983}	\Rightarrow	Pd ^{107.90389} + 3 H ^{3.023476111}	-0.01041
Zn ^{63.92915}	+	O ^{15.994914}	\Rightarrow	H ^{1.007825037}	+	Cu ^{62.92960} + O ^{15.994914}	-0.00828
Zn ^{65.92713}	+	O ^{15.994914}	\Rightarrow	H ^{1.007825037}	+	Cu ^{64.92779} + O ^{15.994914}	-0.00849
Au ^{196.96656}	+	O ^{15.994914}	\Rightarrow	H ^{1.007825037}	+	Pt ^{195.96495} + O ^{15.994914}	-0.00622
Ag ^{106.90509}	+	O ^{15.994914}	\Rightarrow	H ^{1.007825037}	+	Pd ^{105.90348} + O ^{15.994914}	-0.00622
Ag ^{108.90475}	+	O ^{15.994914}	\Rightarrow	H ^{1.007825037}	+	Pd ^{107.90389} + O ^{15.994914}	-0.00697

The set of hydrogen-producing nuclear fission reactions occurring at 37.8°C is complemented by another pair of transmutation reactions following a different atomic mass recombination pattern dependent on carbon dioxide gas, enabling more profitable fusion reactions for converting *silver* \Rightarrow *gold* at 43.4°C, as well as *zinc* \Rightarrow *palladium* at 48.8°C. The atomic mass of CO₂ gas precisely corresponds to atomic mass disparity between Ag¹⁰⁹ and Au¹⁹⁷, as well as Zn⁶⁴ and Pd¹⁰⁸. These confirmed nuclear reactions display a mean atomic mass variance of -0.02365u.

A new resonant class of safe nuclear transmutation systems exemplified by the Ecat reactor of Dr. A. Rossi must inevitably replace the many radioactive industrial atomic power plants that presently endanger all life on Earth. The extreme scientific ignorance obfuscating the reality of 'cold fusion' demands the free distribution of this major discovery as an *open source technology*. Geyser Reactors of all sizes can be safely built and operated by students of geology and biology, inspiring advanced metallurgy projects for production of precious metals and superalloys.

Geyser Reactor systems represent the simplest means for safe and efficient nuclear conversion of various metals near room temperature and under ambient atmospheric pressure conditions. The mnemonic phonon physics of resonant atomic transmutation, *comprehensively defined here for the first time*, now enables more complex high-temperature furnace processes involving conversion of metals by rapid quenching in water after prolonged dwell times at resonance in a molten state. Experimentation with copper bars in standard furnaces confirms that enhanced gas absorption at higher temperatures facilitates conversion of copper surfaces into nickel during cooling in air to 37.8°C by the same hydrogen fission reaction that defines the specific thermoregulation range of the human body.



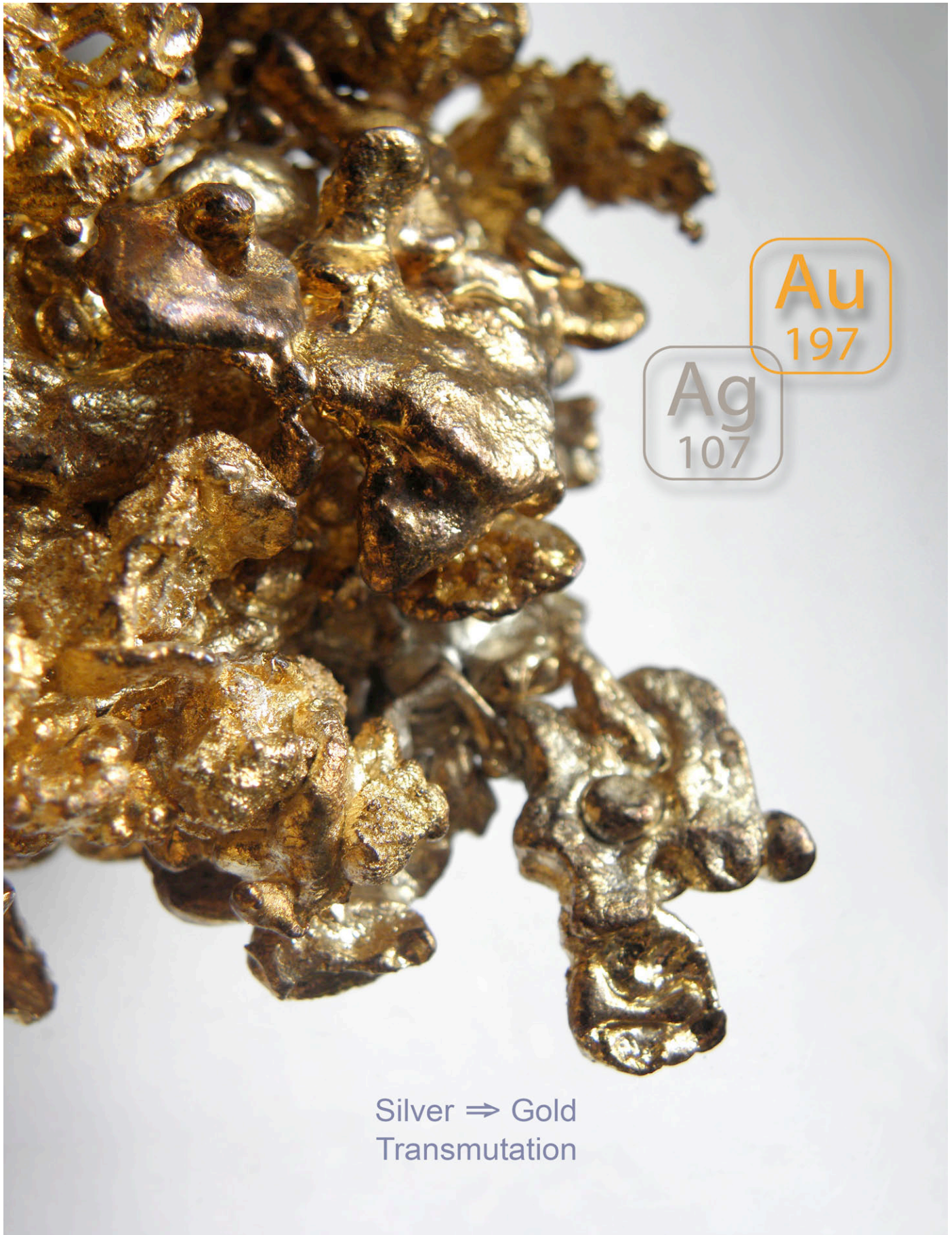
In geological contexts, silver and gold are typically associated with quartz veins formed during hydrological venting processes occurring below geyser hot springs such as those spectacular examples located in Yellowstone National Park. Close interaction of lava chambers with overlying aquifers and geysers has led most geologists to the basic hypothesis that precious metals are transported from below by upwellings of superheated, highly-mineralized waters.

If resonant transmutation occurs at that stage, wouldn't there be evidence of the commingling of elements within both silver and gold deposits? In fact, such evidence does exist, but is very rare. Raw gold nuggets do not contain remnants of silver atoms because transport into fractured bedrock piping recurs during multiple superheating events that liquefy the metals and allow their separation by weight differential. Being almost double the atomic mass of silver, liquefied gold atoms readily reconsolidate and part from silver under such extreme conditions.



Beautifully colored thermophilic algae thrive at 46°C in hydrothermal vents like Fly Geyser, located in Gerlach, Nevada (above), reflecting the same microbial abundance that mesmerizes vulcanologists studying seafloor vent processes that support diverse biological communities congregating around towering deepsea 'black smokers'.

Direct evidence for the natural formation of atomically commingled Ag/Au alloys is present within both biological and geological contexts, as yeast species employ the same gas at the same temperatures that affect conversion in geyser vents. This previously unrecognized class of evidence has been described as a yellowish form of silver dubbed '*allotropic silver*' that is actually an atomically commingled product of the resonant nuclear transmutation of silver into gold. The yellowish complexion of '*allotropic silver*' is actually an ultra dispersion of gold nanodots comprising <5% of silver surfaces, now rapidly reproduced in digitally controlled abiotic Geyser Reactor systems.



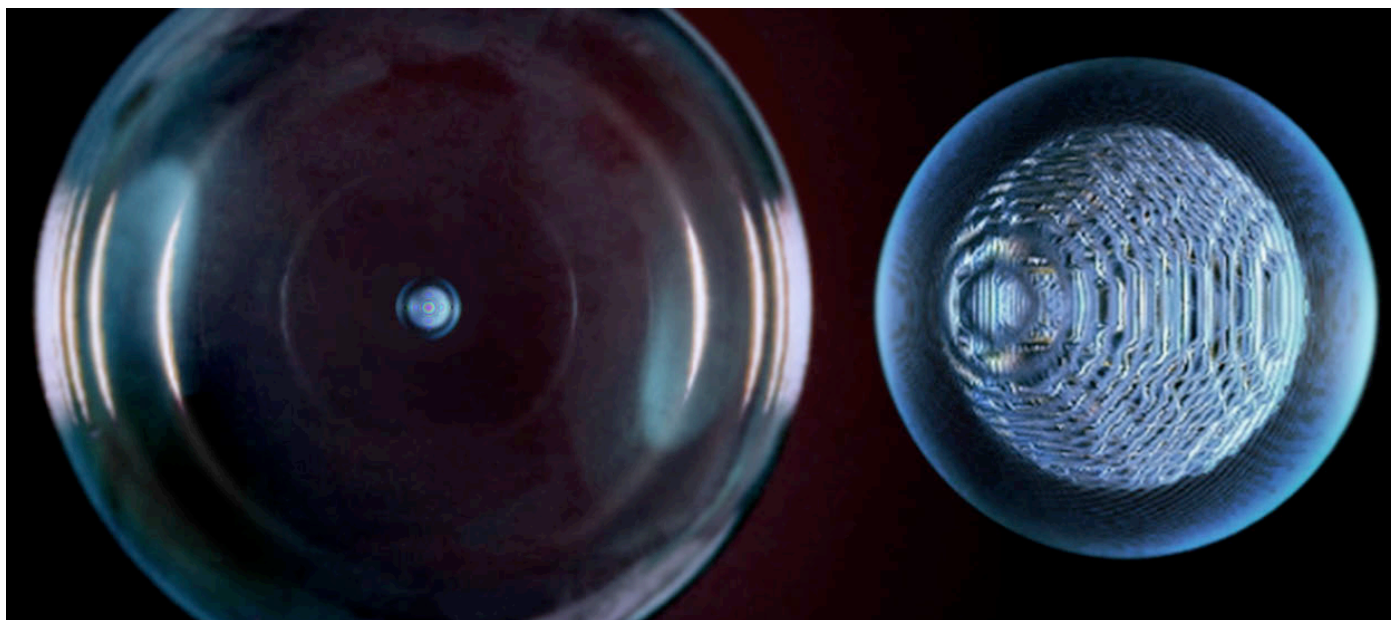
Au
197

Ag
107

Silver => Gold
Transmutation

The Geyser Reactor: Silver \Rightarrow Gold Transmutation

The resonant atomic transmutation of silver into gold is achieved by precision control of atomic resonance in a two-stage reaction that is safe, non-toxic and involves only low energies. Silver becomes instilled with the resonant atomic frequency signature of gold, before being rapidly quenched to trigger bulk conversion into gold –according to the established frequency 'memory' of the standing wave field of each atom (rendered below).



The first stage of the transmutation reaction maintains the starting element (silver) at the phonon resonance frequency of the target element (gold), during a 3-hour dwell time exposed to CO₂ gas nanobubbles.

Gold's single isotope provides the resonant target frequency, as determined by the following formulae (calculated using the latest atomic data sets for the starting element and the target element, provided in blue):

$$\text{Phonon Resonance (Hz/Cm)} = \sqrt[3]{\frac{d \times Na}{m}}$$

*d - density in g/cm³
Na - Avogadro's Constant
m - atomic mass*

$$\text{Resonant Temperature (}^\circ\text{C)} = \frac{\text{Ln}\left(\frac{f(\text{starting})}{f(\text{target})}\right)}{Ec} + St$$

*f - frequency in Hz
Ln - natural logarithm
Ec - expansion coefficient
St - standardized temp in $^\circ\text{C}$*

The resonant frequency of gold (Au¹⁹⁷) in its rest state is 38,945,222 Hz, according to the element's atomic diameter at 20 $^\circ\text{C}$. The lighter isotope of silver (Ag¹⁰⁷) resonates at this same frequency when heated to 43.4 $^\circ\text{C}$:

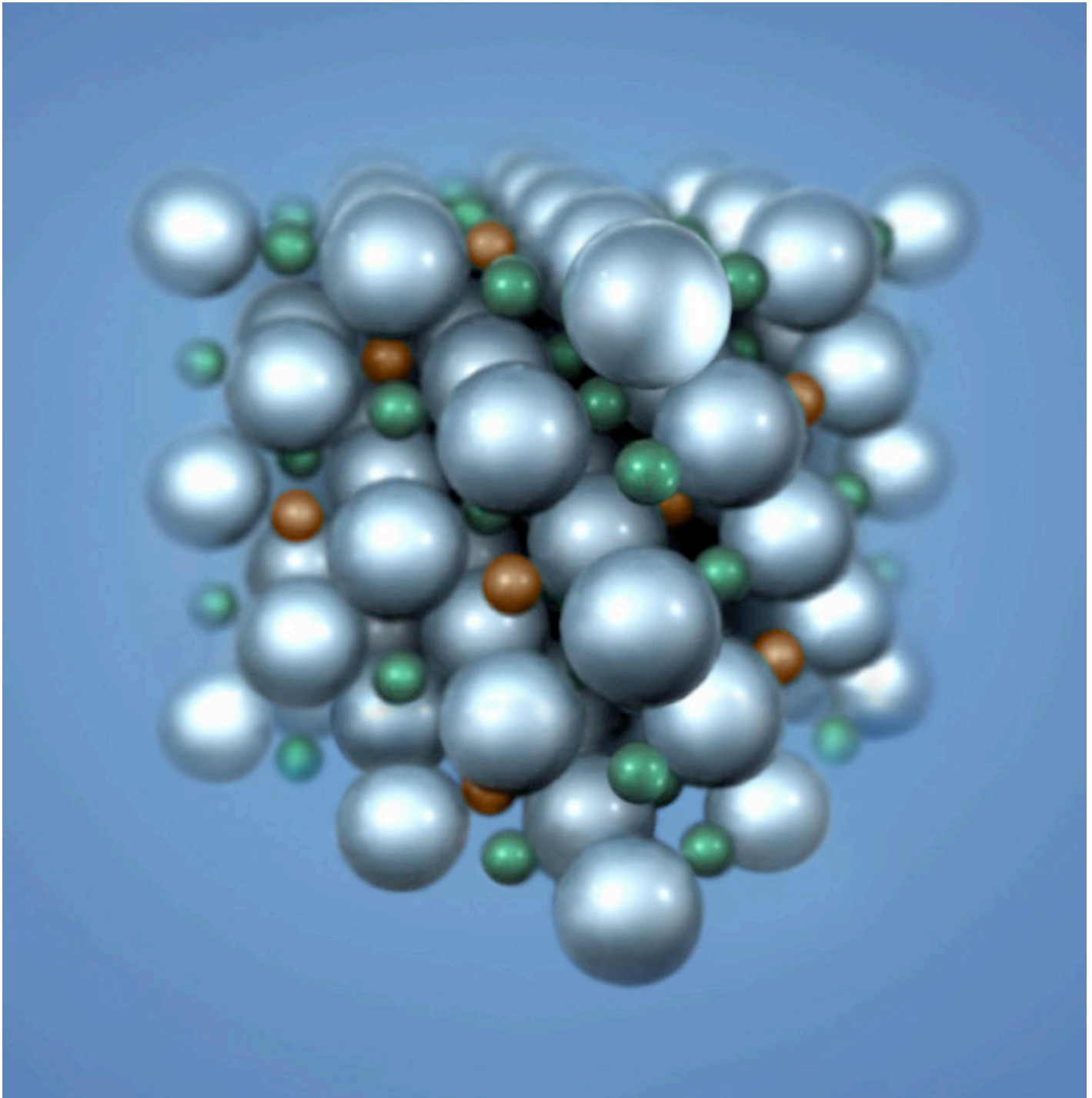
$$\text{Ag}^{107} \text{ Phonon Resonance (Hz/Cm)} = \sqrt[3]{\frac{10.50 \times (6.0221 \times 10^{23})}{106.905095}} = 38,962,452 \text{ Hz}$$

$$\text{Au}^{197} \text{ Phonon Resonance (Hz/Cm)} = \sqrt[3]{\frac{19.32 \times (6.0221 \times 10^{23})}{196.966569}} = 38,945,222 \text{ Hz}$$

$$\text{Resonant Temperature (}^\circ\text{C)} = \frac{\text{Ln}\left(\frac{f(38,962,452)}{f(38,945,222)}\right)}{0.0000189} + 20 = 43.4^\circ\text{C}$$

Starting Element: Silver (⁴⁷Ag¹⁰⁷)
Natural Abundance: 51.839%
Atomic Mass: 106.905095
Density (grams/cm³): 10.50
Exp. Coefficient: 0.0000189

Target Element: Gold (⁷⁹Au¹⁹⁷)
Natural Abundance: 100%
Atomic Mass: 196.966569
Density (grams/cm³): 19.32
Exp. Coefficient: 0.0000142

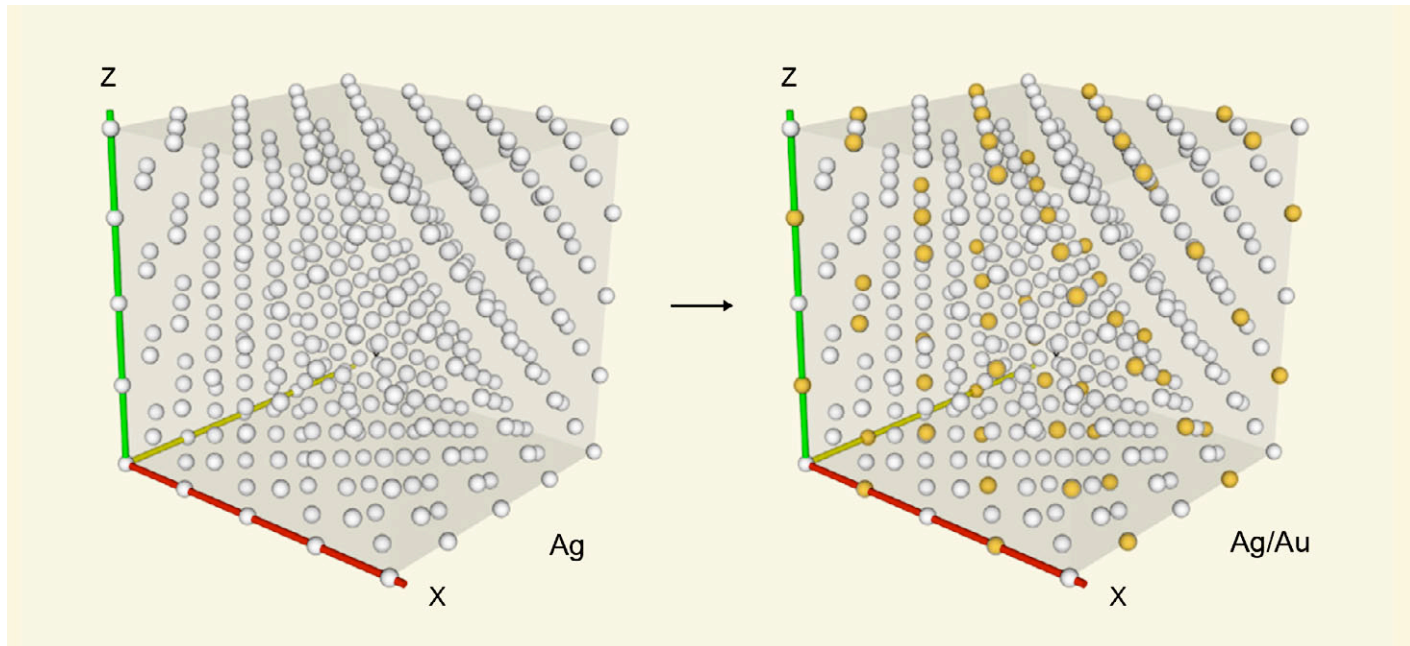


The rate of gas absorption (velocity of penetration) into the metal surface interface is enhanced by increased temperature, pressure and electric current. Carbon dioxide gas *adsorbed* onto metal surfaces undergoes molecular dissociation and subsequent *absorption* into the crystal lattice of heavier metal atoms (above).

The second stage of the transmutation reaction involves the subsequent trapping of absorbed gases into silver atoms by the induced shock of rapid cooling. The sudden contraction of the atomic lattice forces the interstitial absorbed atoms into quantum instability as the strongly repulsive nuclear forces of the adjacent metal atoms close in simultaneously on each gas atom from 6 sides (along the x, y and z axes of the lattice).

Instead of rapidly contracting, a portion of the silver atoms are able to maintain the previously established resonant diameter by accepting protons, neutrons and electrons from the 6 adjacent trapped gas atoms, thereby increasing the atomic weight of silver atoms to induce the formation of gold atoms.

The face-centered cubic structure of the metal's atomic lattice allows for a maximum of 6 interstitial gas atoms being adjacent to any one metal atom, limiting maximum total conversion during rapid cooling to below 1/8th (~12.5%) of the total number of metal atoms. For optimal cases with complete saturation of absorbed carbon dioxide gas (illustrated below), transmutation during a single rapid cooling event can convert up to 12.5% of silver atoms into gold, leaving the remaining 87.5% unaltered –thereby increasing to 110.25% of the total original mass.



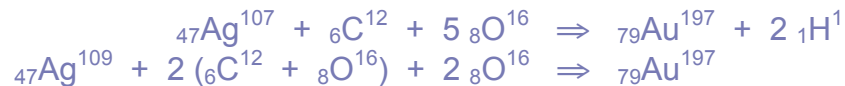
Gas absorption periods of prolonged dwell-time at phonon resonance with the gold target element are interrupted by controlled rapid cooling events that accomplish the quantum trapping of absorbed gas atoms within the contracting metal lattice. This cyclical process is repeated dozens of times over each 2-week production run, with successive contractile phases gradually converting greater than 70% of silver atoms locked within the lattice.

These emerging resonant nuclear recombination dynamics dictate that no adjacent pair of silver atoms may be simultaneously converted into gold due to the limited availability of interstitial gas atoms. Experimentation with successive gas absorption and quenching phases has confirmed that >90% conversion of silver atoms into gold atoms can be achieved after a few dozen repetitions of the same basic phonon resonance process *when using aqueous silver nanopowder suspensions with carbon dioxide nanobubble systems*.

Silver ⇒ Gold

The carbon dioxide-dependent low energy transmutation of silver atoms into gold and hydrogen atoms occurs after prolonged absorption of carbon dioxide during precision heating to 43.4°C phonon frequency resonance with gold.

- Silver is heated to 43.4°C, absorbing carbon and oxygen to form gold and hydrogen during rapid cooling:



Carbon dioxide (CO₂) gas comprises the exact atomic mass required for the conversion of silver into gold, after dissociated carbon and oxygen atoms are fully absorbed into silver nanoparticles. Carbon and oxygen atoms absorbed within the framework of the silver atomic lattice may recombine with individual silver atoms in groups of 6 adjacent gas atoms occupying all available interstitial loci, recombining as (1 C + 5 O) and (2 C + 4 O):

Starting Isotope	+ Absorbed Gas Atoms	⇒ Target Isotope	+ Bi-Products	±Variance
Ag ^{106.90509}	+ 1 C ^{12.00000} + 5 O ^{79.9745732}	⇒ Au ^{196.96656}	+ 2 H ^{2.015650074}	-0.10255
Ag ^{108.90475}	+ 2 C ^{24.00000} + 4 O ^{63.9796586}	⇒ Au ^{196.96656}		-0.08215

Pure Ag Shavings

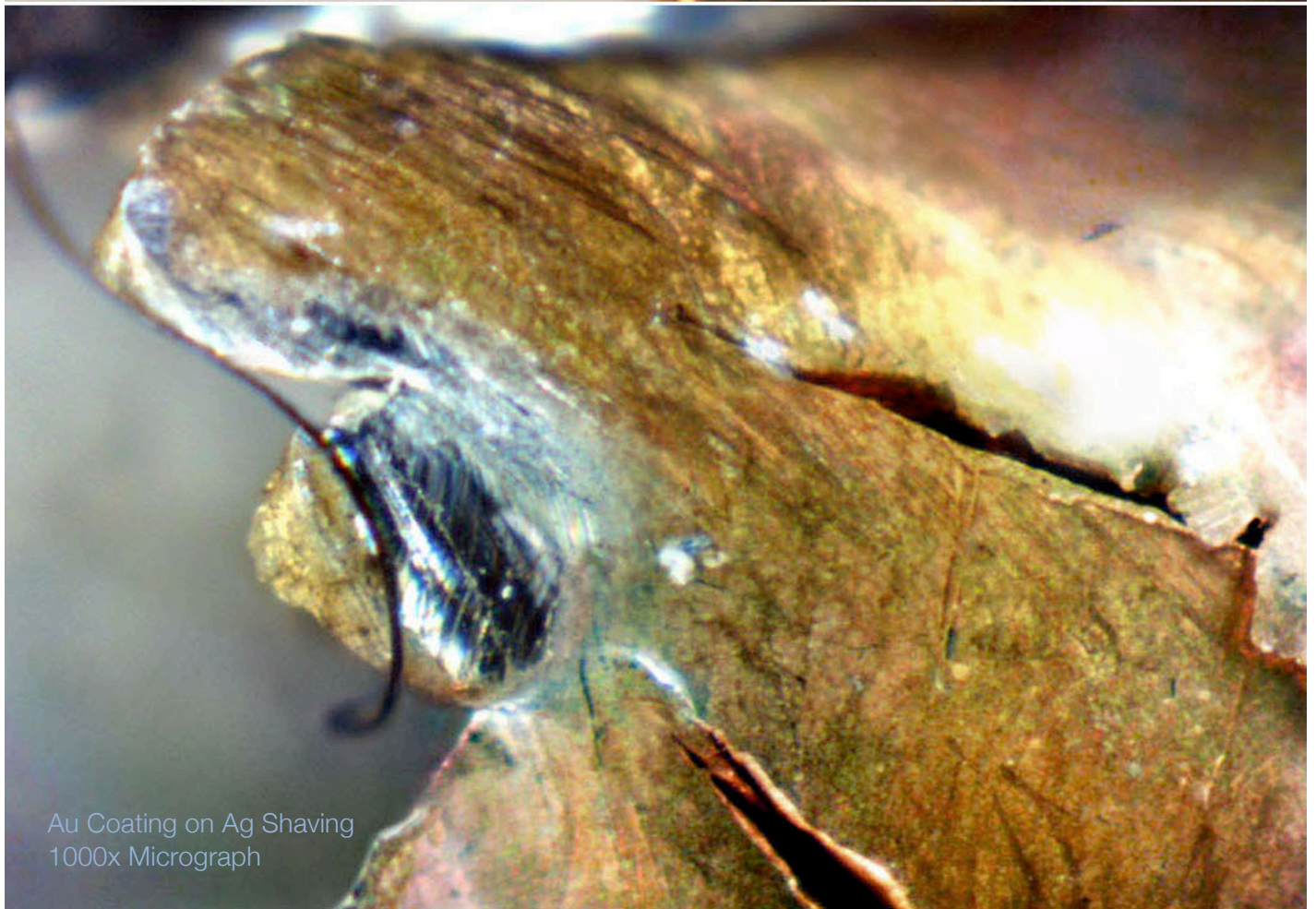


~10% NanoAu Coating

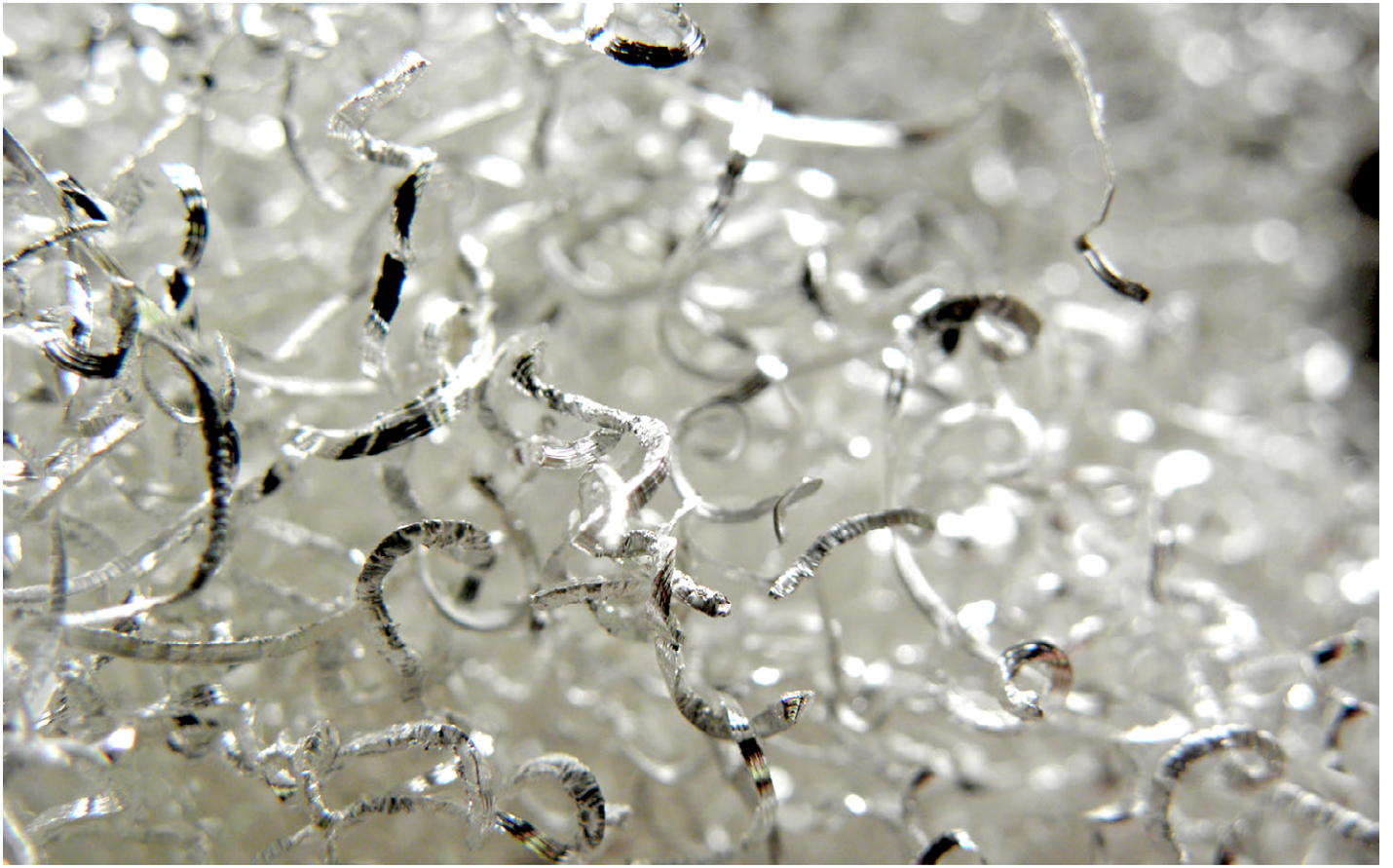




>70% Au Coating on Ag Plate

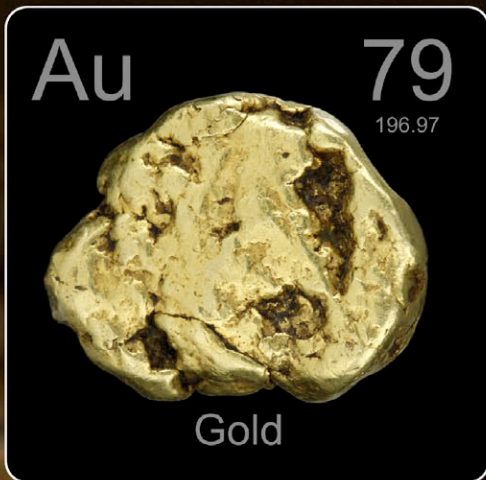
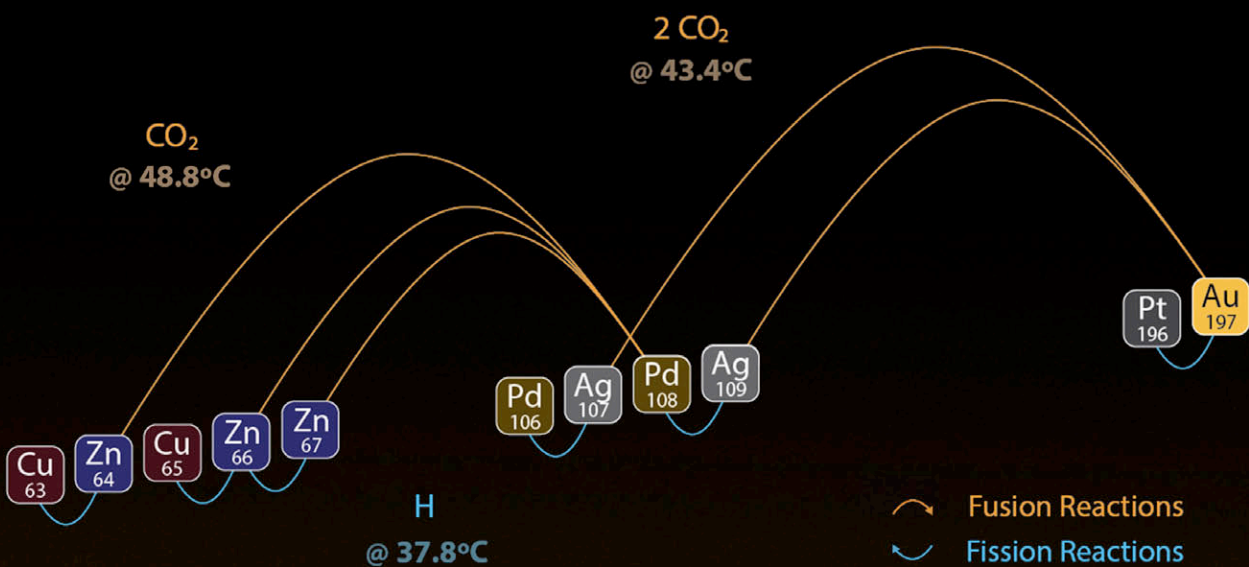


Au Coating on Ag Shaving
1000x Micrograph



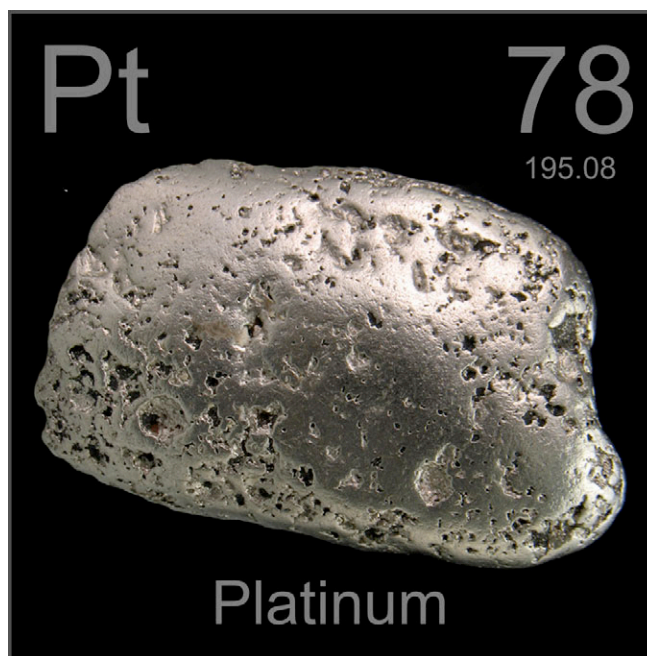
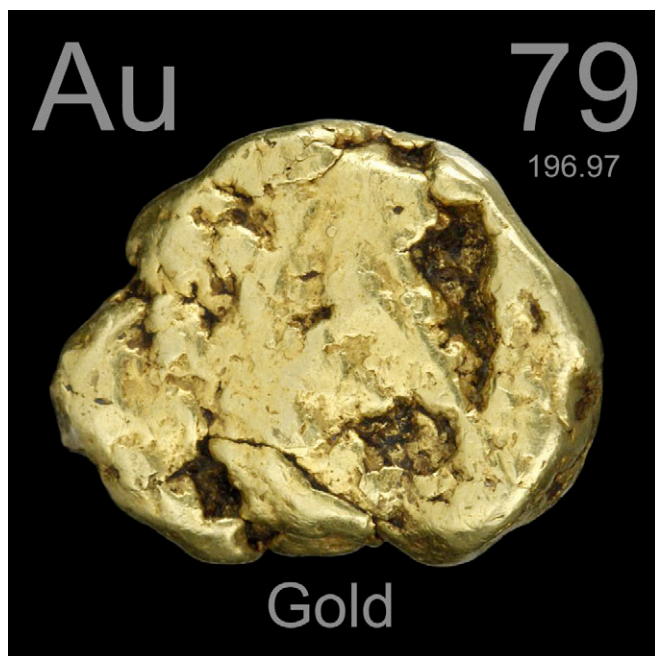


Geyser Reactor Cascades



The Geyser Reactor: Gold \Rightarrow Platinum Transmutation

The resonant transmutation of gold into platinum is achieved by precision control of atomic resonance in a two-stage reaction that is safe, non-toxic and involves only low energies. Gold becomes instilled with the resonant atomic frequency signature of hydrogen, before being rapidly quenched to trigger bulk conversion into hydrogen and platinum –according to the established frequency 'memory' of the standing wave field of each atom.



The first stage of the transmutation reaction maintains the starting element (gold) at the phonon resonance frequency of the target bi-product element (H^1), during a 3-hour dwell time exposed to O_2 gas nanobubbles.

Protium, the lightest hydrogen isotope (H^1) provides the resonant target frequency for this reaction, as determined by the following formulae (calculated using the latest atomic data sets for the elements, provided in blue):

$$\text{Phonon Resonance (Hz/Cm)} = \sqrt[3]{\frac{d \times Na}{m}}$$

*d - density in g/cm³
Na - Avogadro's Constant
m - atomic mass*

$$\text{Resonant Temperature (}^\circ\text{C)} = \frac{\text{Ln}\left(\frac{f(\text{starting})}{f(\text{target})}\right)}{Ec} + St$$

*f - frequency in Hz
Ln - natural logarithm
Ec - expansion coefficient
St - standardized temp in $^\circ\text{C}$*

The resonant frequency of hydrogen isotope (H^1) in its rest state is 3,773,180 Hz, according to the element's atomic diameter at 20 $^\circ\text{C}$. Oxygen isotope (O^{16}) resonates at this same frequency when heated to 37.8 $^\circ\text{C}$:

$$O^{16} \text{ Phonon Resonance (Hz/Cm)} = \sqrt[3]{\frac{0.001429 \times (6.0221 \times 10^{23})}{15.99491}} = 3,775,138 \text{ Hz}$$

$$H^1 \text{ Phonon Resonance (Hz/Cm)} = \sqrt[3]{\frac{0.0000899 \times (6.0221 \times 10^{23})}{1.007825037}} = 3,773,180 \text{ Hz}$$

$$\text{Resonant Temperature (}^\circ\text{C)} = \frac{\text{Ln}\left(\frac{f(3,775,138)}{f(3,773,180)}\right)}{0.0000291} + 20 = 37.8 \text{ }^\circ\text{C}$$

Starting Element: **Oxygen (${}_8O^{16}$)**
Natural Abundance: **99.762%**
Atomic Mass: **15.99491**
Density (grams/cm³): **0.001429**
Exp. Coefficient: **0.0000291**

Target Element: **Hydrogen (${}_1H^1$)**
Natural Abundance: **99.985%**
Atomic Mass: **1.007825037**
Density (grams/cm³): **0.0000899**
Exp. Coefficient: **0.0000366**



The rate of gas absorption (velocity of penetration) into the metal surface interface is enhanced by increased temperature, pressure and electric current. Oxygen gas adsorbed onto metal surfaces undergoes molecular dissociation and subsequent absorption into the crystal lattice of heavier metal atoms.

The second stage of the transmutation reaction involves the subsequent trapping of absorbed gases into gold atoms by the induced shock of rapid cooling. The sudden contraction of the atomic lattice forces the interstitial absorbed atoms into quantum instability as the strongly repulsive nuclear forces of the adjacent metal atoms close in simultaneously on each gas atom from 6 sides (along the x, y and z axes of the lattice).

Instead of rapidly contracting, some of the gold atoms are able to maintain the previously established resonant diameter by ejecting protons, neutrons and electrons into available interstitial spaces within the lattice, thereby decreasing the atomic weight of gold atoms to induce the formation of hydrogen and platinum.

Gold ⇒ Platinum

The oxygen-dependent low energy transmutation of gold into hydrogen and platinum occurs in aqueous reactors, based on phonon matching of oxygen (O¹⁶) at 37.8°C with hydrogen (H¹) at rest (20°C), as in human blood.

- Gold is heated to 37.8°C with oxygen, releasing hydrogen atoms to form platinum during rapid cooling:

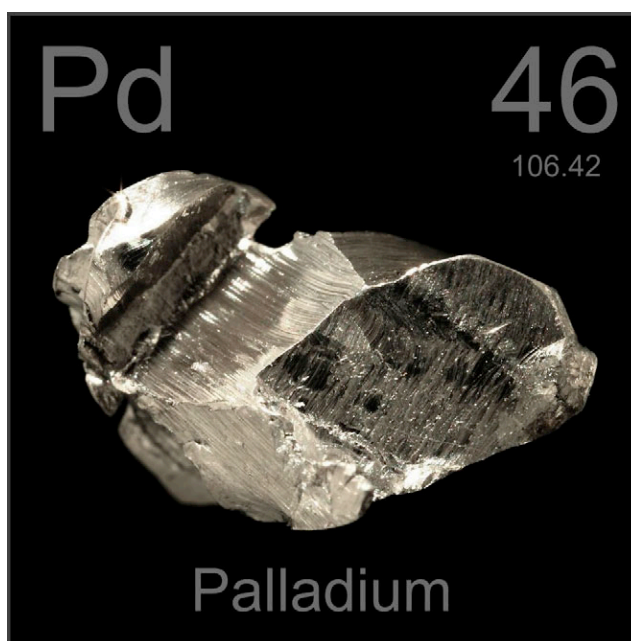


Hydrogen provides the exact atomic mass required for the conversion of gold into platinum. Clear atomic mass recombination patterns define fission bi-products ejected from gold nuclei during the quantum trapping event:

Starting Isotope	+	Absorbed Gas Atoms	⇒	Target Isotope	+	Bi-Products	±Variance
Au 196.96656	+	O 15.994914	⇒	H 1.007825037	+	Pt 195.96495 + O 15.994914	-0.00622

The Geyser Reactor: Silver \Rightarrow Palladium Transmutation

The resonant atomic transmutation of silver into palladium is achieved by precision control of atomic resonance in a two-stage reaction that is safe, non-toxic and involves only low energies. Silver becomes instilled with the resonant atomic frequency signature of hydrogen, before being rapidly quenched to trigger bulk conversion into hydrogen and palladium –according to the established frequency 'memory' of the standing wave field of each atom.



The first stage of the transmutation reaction maintains the starting element (silver) at the phonon resonance frequency of the target bi-product element (H^1), during a 3-hour dwell time exposed to O_2 gas nanobubbles.

Protium, the lightest hydrogen isotope (H^1) provides the resonant target frequency for this reaction, as determined by the following formulae (calculated using the latest atomic data sets for the elements, provided in [blue](#)):

$$\text{Phonon Resonance (Hz/Cm)} = \sqrt[3]{\frac{d \times Na}{m}} \quad \begin{array}{l} d - \text{density in g/cm}^3 \\ Na - \text{Avogadro's Constant} \\ m - \text{atomic mass} \end{array}$$

$$\text{Resonant Temperature (}^\circ\text{C)} = \frac{\text{Ln} \left(\frac{f(\text{starting})}{f(\text{target})} \right)}{Ec} + St \quad \begin{array}{l} f - \text{frequency in Hz} \\ \text{Ln} - \text{natural logarithm} \\ Ec - \text{expansion coefficient} \\ St - \text{standardized temp in } ^\circ\text{C} \end{array}$$

The resonant frequency of hydrogen isotope (H^1) in its rest state is 3,773,180 Hz, according to the element's atomic diameter at 20°C. Oxygen isotope (O^{16}) resonates at this same frequency when heated to 37.8°C:

$$O^{16} \text{ Phonon Resonance (Hz/Cm)} = \sqrt[3]{\frac{0.001429 \times (6.0221 \times 10^{23})}{15.99491}} = 3,775,138 \text{ Hz}$$

$$H^1 \text{ Phonon Resonance (Hz/Cm)} = \sqrt[3]{\frac{0.0000899 \times (6.0221 \times 10^{23})}{1.007825037}} = 3,773,180 \text{ Hz}$$

$$\text{Resonant Temperature (}^\circ\text{C)} = \frac{\text{Ln} \left(\frac{f(3,775,138)}{f(3,773,180)} \right)}{0.0000291} + 20 = 37.8 \text{ }^\circ\text{C}$$

Starting Element: [Oxygen \(\${}_8O^{16}\$ \)](#)
 Natural Abundance: [99.762%](#)
 Atomic Mass: [15.99491](#)
 Density (grams/cm³): [0.001429](#)
 Exp. Coefficient: [0.0000291](#)

Target Element: [Hydrogen \(\${}_1H^1\$ \)](#)
 Natural Abundance: [99.985%](#)
 Atomic Mass: [1.007825037](#)
 Density (grams/cm³): [0.0000899](#)
 Exp. Coefficient: [0.0000366](#)

The rate of gas absorption (velocity of penetration) into the metal surface interface is enhanced by increased temperature, pressure and electric current. Oxygen gas adsorbed onto metal surfaces undergoes molecular dissociation and subsequent absorption into the crystal lattice of heavier metal atoms.

The second stage of the transmutation reaction involves the subsequent trapping of absorbed gases into silver atoms by the induced shock of rapid cooling. The sudden contraction of the atomic lattice forces the interstitial absorbed atoms into quantum instability as the strongly repulsive nuclear forces of the adjacent metal atoms close in simultaneously on each gas atom from 6 sides (along the x, y and z axes of the lattice).

Instead of rapidly contracting, some of the silver atoms are able to maintain the previously established resonant diameter by ejecting protons, neutrons and electrons into available interstitial spaces within the lattice, thereby decreasing the atomic weight of silver atoms to induce the formation of hydrogen and palladium.

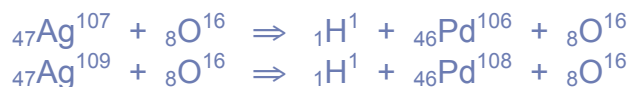


The face-centered cubic structure of the metal's atomic lattice allows for a maximum of 6 interstitial gas atoms being adjacent to any one metal atom, providing stable loci for gas atoms ejected by silver atoms during quantum trapping events. Absorption of oxygen atoms through silver surfaces at 37.8°C transmits phonon vibrations throughout the metal lattice at the hydrogen target frequency, enabling bulk conversion of silver into palladium at high rates of efficiency. The subtle bulk weight changes resulting from this resonant nuclear reaction can only be determined after ejected hydrogen atoms have been desorbed from metal surfaces by cooling to the rest state at 20°C.

Silver ⇒ Palladium

The oxygen-dependent low energy transmutation of silver into palladium occurs in aqueous reactors, based on phonon matching of oxygen (O¹⁶) at 37.8°C with hydrogen (H¹) at rest (20°C), as in human blood.

- Silver is heated to 37.8°C with oxygen, releasing hydrogen atoms to form palladium during rapid cooling:

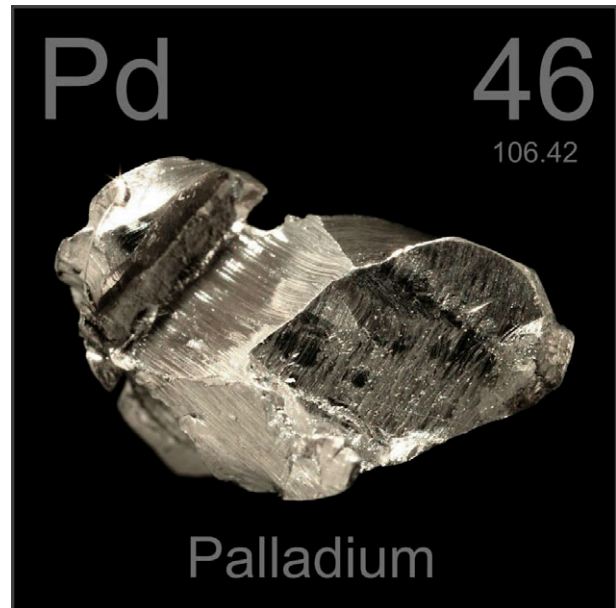
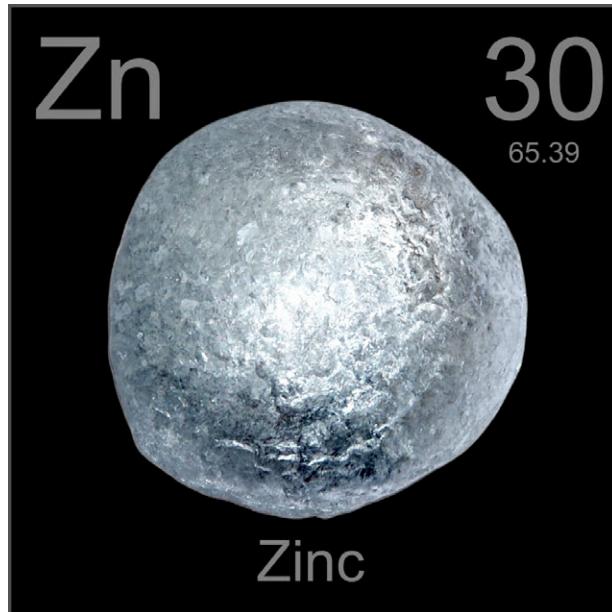


Hydrogen atoms comprise the exact atomic mass required for the conversion of silver into palladium. Clear atomic mass recombination patterns define fission bi-products ejected from silver nuclei during the quantum trapping event:

Starting Isotope	+	Absorbed Gas Atoms	⇒	Target Isotope	+	Bi-Products	±Variance
Ag ^{106.90509}	+	O ^{15.994914}	⇒	H ^{1.007825037}	+	Pd ^{105.90348} + O ^{15.994914}	-0.00622
Ag ^{108.90475}	+	O ^{15.994914}	⇒	H ^{1.007825037}	+	Pd ^{107.90389} + O ^{15.994914}	-0.00697

The Geyser Reactor: Zinc \Rightarrow Palladium Transmutation

The resonant atomic transmutation of zinc into palladium is achieved by precision control of atomic resonance in a 2-stage reaction that is safe, non-toxic and involves only low energies. Zinc becomes instilled with the resonant atomic frequency signature of palladium, before being rapidly quenched to trigger bulk conversion into palladium –according to the established frequency 'memory' of the standing wave field of each atom.



The first stage of the transmutation reaction maintains the starting element (zinc) at the phonon resonance frequency of the target element (palladium), during a 3-hour dwell time exposed to CO₂ gas nanobubbles.

Palladium isotope Pd¹⁰⁸ provides the resonant target frequency, as determined by the following formulae (calculated using the latest atomic data sets for the starting element and the target element, provided in blue):

$$\text{Phonon Resonance (Hz/Cm)} = \sqrt[3]{\frac{d \times Na}{m}}$$

d - density in g/cm³
Na - Avogadro's Constant
m - atomic mass

$$\text{Resonant Temperature (}^{\circ}\text{C)} = \frac{\text{Ln}\left(\frac{f(\text{starting})}{f(\text{target})}\right)}{Ec} + St$$

f - frequency in Hz
Ln - natural logarithm
Ec - expansion coefficient
St - standardized temp in $^{\circ}\text{C}$

The resonant frequency of palladium isotope Pd¹⁰⁸ in its rest state is 40,632,335 Hz, according to the element's atomic diameter at 20°C. Zinc isotope Zn⁶⁴ resonates at this same frequency when heated to 48.8°C:

$$\text{Zn}^{64} \text{ Phonon Resonance (Hz/Cm)} = \sqrt[3]{\frac{7.14 \times (6.0221 \times 10^{23})}{63.92914}} = 40,667,653 \text{ Hz}$$

$$\text{Pd}^{108} \text{ Phonon Resonance (Hz/Cm)} = \sqrt[3]{\frac{12.02 \times (6.0221 \times 10^{23})}{107.90389}} = 40,632,335 \text{ Hz}$$

$$\text{Resonant Temperature (}^{\circ}\text{C)} = \frac{\text{Ln}\left(\frac{f(40,667,653)}{f(40,632,335)}\right)}{0.0000302} + 20 = 48.8^{\circ}\text{C}$$

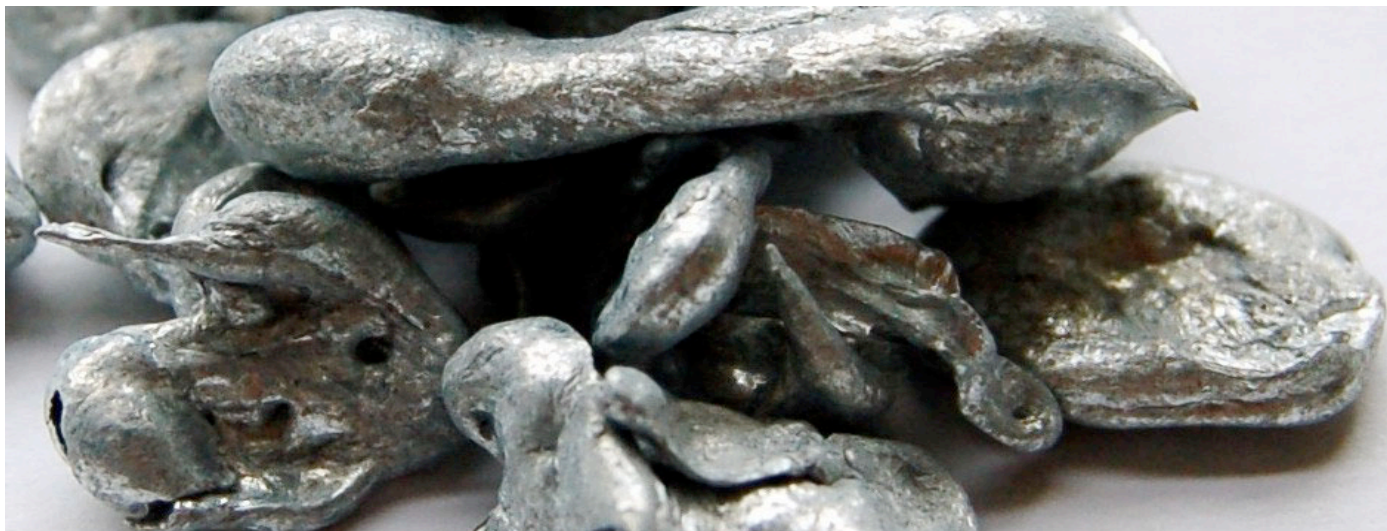
Starting Element: Zinc (${}_{30}\text{Zn}^{64}$)
 Natural Abundance: 48.27%
 Atomic Mass: 63.92914
 Density (grams/cm³): 7.14
 Exp. Coefficient: 0.0000302

Target Element: Palladium (${}_{46}\text{Pd}^{108}$)
 Natural Abundance: 26.46%
 Atomic Mass: 107.90389
 Density (grams/cm³): 12.02
 Exp. Coefficient: 0.0000118

The rate of gas absorption (velocity of penetration) into the metal surface interface is enhanced by increased temperature, pressure and electric current. Carbon dioxide gas *adsorbed* onto metal surfaces undergo molecular dissociation and subsequent *absorption* into the crystal lattice of heavier metal atoms.

The second stage of the transmutation reaction involves the subsequent trapping of absorbed gases into zinc atoms by the induced shock of rapid cooling. The sudden contraction of the atomic lattice forces the interstitial absorbed atoms into quantum instability as the strongly repulsive nuclear forces of the adjacent metal atoms close in simultaneously on each gas atom from 6 sides (along the x, y and z axes of the lattice).

Instead of rapidly contracting, some of the zinc atoms are able to maintain the previously established resonant diameter by accepting protons, neutrons and electrons from 3 adjacent trapped gas atoms, thereby increasing the atomic weight of zinc atoms to induce the formation of palladium.

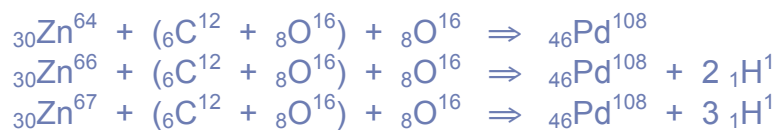


The face-centered cubic structure of the metal's atomic lattice allows for a maximum of 6 interstitial gas atoms being adjacent to any one metal atom, limiting maximum total conversion during the reaction to $\frac{1}{4}$ (~25%) of the total number of metal atoms. In the optimized case of complete saturation of absorbed gases, the transmutation of zinc into palladium can achieve a maximum weight increase to 109.5% of the original mass, leaving 75% of the zinc atoms unaltered and the remaining 25% converted into palladium –*increasing in weight to become 137% of the total original mass.*

Zinc ⇒ Palladium

The carbon dioxide-dependent low energy transmutation of zinc atoms into palladium atoms occurs during exposure to CO₂ gas absorption during precision heating to 48.8°C resonance with palladium (Pd¹⁰⁸) isotope.

- Zinc is heated, absorbing carbon and oxygen atoms to form palladium atoms during rapid cooling:

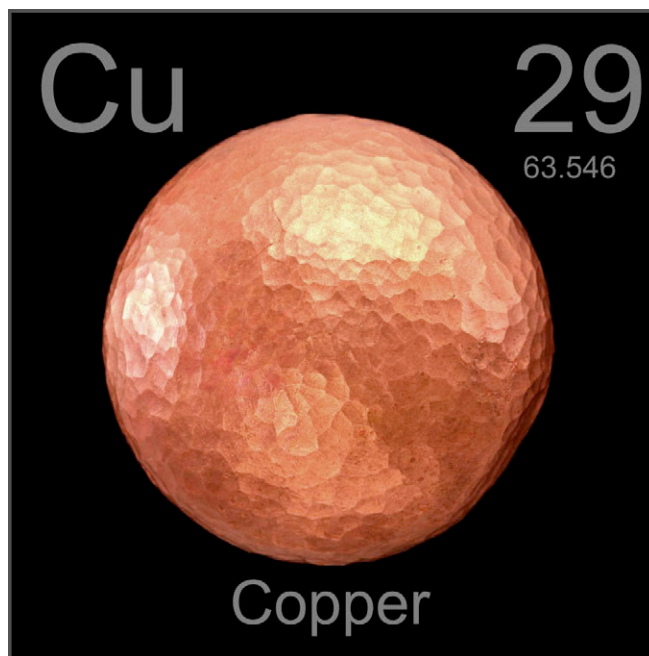


Carbon dioxide (CO₂) gas comprises the exact atomic mass required for the conversion of zinc into palladium, dissociating into carbon and oxygen atoms that combine with individual zinc atoms in groups of 3 adjacent interstitial gas atoms as (C + 2 O). Resonant atomic mass recombination patterns between gas and metal atoms are as follows:

Starting Isotope	+	Absorbed Gas Atoms	⇒	Target Isotope	+	Bi-Products	±Variance
Zn ^{63.92915}	+	1 C ^{12.00000} + 2 O ^{31.98983}	⇒	Pd ^{107.90389}			+0.01509
Zn ^{65.92604}	+	1 C ^{12.00000} + 2 O ^{31.98983}	⇒	Pd ^{107.90389}	+	2 H ^{2.015650074}	-0.00367
Zn ^{66.92713}	+	1 C ^{12.00000} + 2 O ^{31.98983}	⇒	Pd ^{107.90389}	+	3 H ^{3.023476111}	-0.01041

The Geyser Reactor: Zinc \Rightarrow Copper Transmutation

The resonant atomic transmutation of zinc into copper is achieved by precision control of atomic resonance in a two-stage reaction that is safe, non-toxic and involves only low energies. Zinc becomes instilled with the resonant atomic frequency signature of hydrogen, before being rapidly quenched to trigger bulk conversion into hydrogen and copper –according to the established frequency 'memory' of the standing wave field of each atom.



The first stage of the transmutation reaction maintains the starting element (zinc) at the phonon resonance frequency of the target bi-product element (H^1), during a 3-hour dwell time exposed to O_2 gas nanobubbles.

Protium, the lightest hydrogen isotope (H^1) provides the resonant target frequency for this reaction, as determined by the following formulae (calculated using the latest atomic data sets for the elements, provided in blue):

$$\text{Phonon Resonance (Hz/Cm)} = \sqrt[3]{\frac{d \times Na}{m}}$$

*d - density in g/cm³
Na - Avogadro's Constant
m - atomic mass*

$$\text{Resonant Temperature (}^\circ\text{C)} = \frac{\text{Ln}\left(\frac{f(\text{starting})}{f(\text{target})}\right)}{Ec} + St$$

*f - frequency in Hz
Ln - natural logarithm
Ec - expansion coefficient
St - standardized temp in $^\circ\text{C}$*

The resonant frequency of hydrogen isotope (H^1) in its rest state is 3,773,180 Hz, according to the element's atomic diameter at 20°C . Oxygen isotope (O^{16}) resonates at this same frequency when heated to 37.8°C :

$$O^{16} \text{ Phonon Resonance (Hz/Cm)} = \sqrt[3]{\frac{0.001429 \times (6.0221 \times 10^{23})}{15.99491}} = 3,775,138 \text{ Hz}$$

$$H^1 \text{ Phonon Resonance (Hz/Cm)} = \sqrt[3]{\frac{0.0000899 \times (6.0221 \times 10^{23})}{1.007825037}} = 3,773,180 \text{ Hz}$$

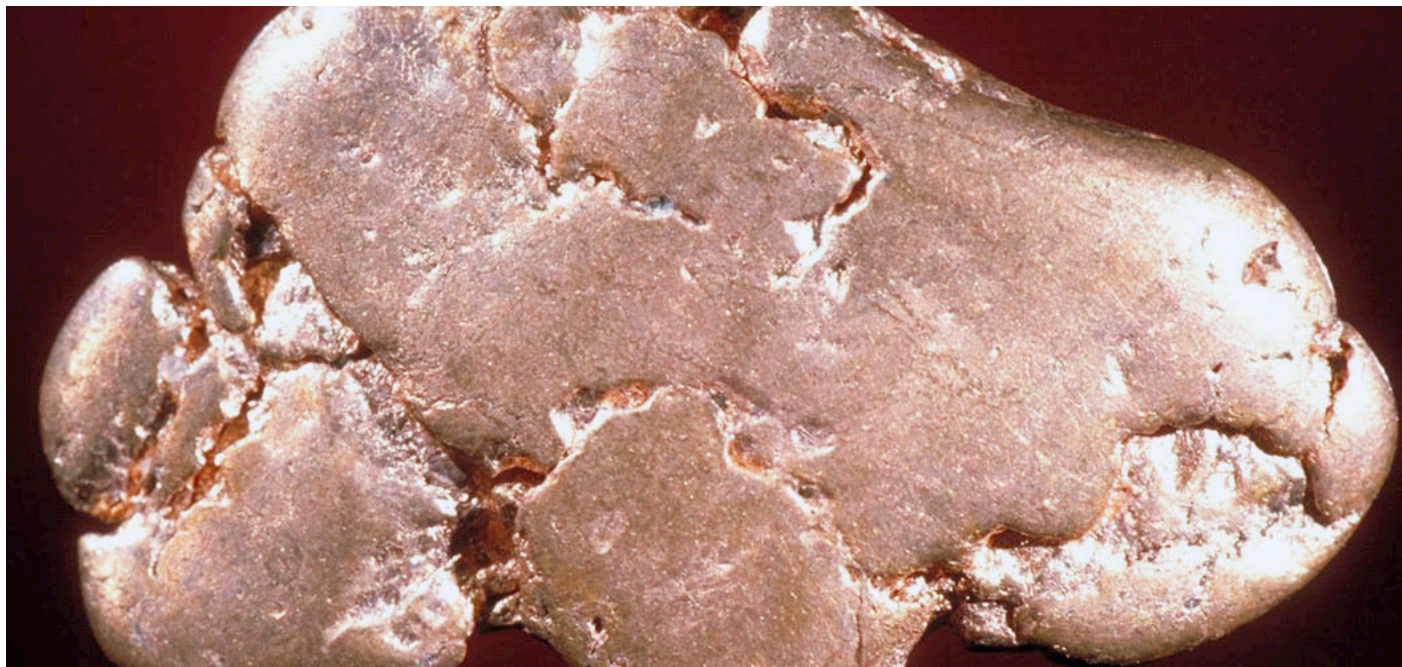
$$\text{Resonant Temperature (}^\circ\text{C)} = \frac{\text{Ln}\left(\frac{f(3,775,138)}{f(3,773,180)}\right)}{0.0000291} + 20 = 37.8^\circ\text{C}$$

Starting Element: **Oxygen (${}_8O^{16}$)**
Natural Abundance: **99.762%**
Atomic Mass: **15.99491**
Density (grams/cm³): **0.001429**
Exp. Coefficient: **0.0000291**

Target Element: **Hydrogen (${}_1H^1$)**
Natural Abundance: **99.985%**
Atomic Mass: **1.007825037**
Density (grams/cm³): **0.0000899**
Exp. Coefficient: **0.0000366**

The rate of gas absorption (velocity of penetration) into the metal surface interface is enhanced by increased temperature, pressure and electric current. Oxygen gas adsorbed onto metal surfaces undergoes molecular dissociation and subsequent absorption into the crystal lattice of heavier metal atoms.

The second stage of the transmutation reaction involves the subsequent trapping of absorbed gases into zinc atoms by the induced shock of rapid cooling. The sudden contraction of the atomic lattice forces the interstitial absorbed atoms into quantum instability as the strongly repulsive nuclear forces of the adjacent metal atoms close in simultaneously on each gas atom from 6 sides (along the x, y and z axes of the lattice).



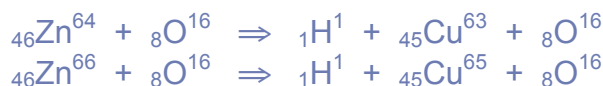
Instead of rapidly contracting, some of the zinc atoms are able to maintain the previously established resonant diameter by ejecting protons, neutrons and electrons into available interstitial spaces within the lattice, thereby decreasing the atomic weight of zinc atoms to induce the formation of hydrogen and copper.

The face-centered cubic structure of the metal's atomic lattice allows for a maximum of 6 interstitial gas atoms being adjacent to any one metal atom, providing stable loci for gas atoms ejected by zinc atoms during quantum trapping events. Absorption of oxygen atoms through zinc surfaces at 37.8°C transmits phonon vibrations throughout the metal lattice at the hydrogen target frequency, enabling bulk conversion of zinc into copper at high rates of efficiency. The subtle bulk weight changes resulting from this resonant nuclear reaction can only be determined after ejected hydrogen atoms have been desorbed from metal surfaces by cooling to the rest state at 20°C.

Zinc ⇒ Copper

The oxygen-dependent low energy transmutation of zinc into copper occurs in aqueous reactors, based on phonon matching of oxygen (O¹⁶) at 37.8°C with hydrogen (H¹) at rest (20°C), as in human blood.

- Zinc is heated to 37.8°C with oxygen, releasing hydrogen atoms to form copper during rapid cooling:



Hydrogen atoms comprise the exact atomic mass required for the conversion of zinc into copper. Clear atomic mass recombination patterns define fission bi-products ejected from zinc nuclei during the quantum trapping event:

Starting Isotope	+	Absorbed Gas Atoms	⇒	Target Isotope	+	Bi-Products	±Variance
Zn 63.92915	+	O 15.994914	⇒	H 1.007825037	+	Cu 62.92960 + O 15.994914	-0.00828
Zn 65.92713	+	O 15.994914	⇒	H 1.007825037	+	Cu 64.92779 + O 15.994914	-0.00849